

REMARKS

Favorable reconsideration of this application as presently amended and in light of the following discussion is respectfully requested.

Claims 1-22 are presently active in this case, Claims 1, 8, 10 and 13 amended by way of the present amendment.

In the outstanding Official Action, Claims 1-4, 13-17 and 22 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,639,100 to Garrigues et al.; Claims 1 and 3-5 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,123,337 to Fang et al.; Claims 6, 7 and 21 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Garrigues in view of U.S. Patent No. 5,564,177 to Fernandes; and Claims 8-12 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Garrigues in view of U.S. Patent No. 5,090,871 to Story et al.

First, Applicants wish to thank Examiner Peavey for the September 1, 2004 personal interview at which time the outstanding issues in this case were discussed. During the discussion, Applicants presented amendments and arguments substantially as indicated in this response. While no formal agreement was reached, Examiner Peavey indicated that he would consider whether the limitation of a leak detection port in Claim 1 necessitates a restriction requirement and whether such limitation patentably defines over the cited references. Moreover, Examiner Peavey indicated that amending Claim 13 to include a plasma processing unit would make this claim patentably define over the cited references currently of record.

Turning now to the merits, in order to expedite issuance of a patent in this case, Applicants have amended independent Claims 1 and 13 to clarify the patentable distinctions of the present invention over the cited references.

Specifically, Claim 1, as amended herein, recites a sealing apparatus including a first part having a first surface configured to cooperate with a second surface of a second part, a groove formed in the first surface and a first o-ring configured to seal a first fluid in a first region from a second fluid in a second region, while contained in the groove. Also recited is a second o-ring in continuous contact with the first o-ring while contained in the groove, thereby defining a third region between the first o-ring and the second o-ring. A leak check port in fluid communication with the third region and configured to check a fluid leak in at least one of the first o-ring and second o-ring is also recited in Claim 1.

The outstanding Official Action acknowledges that Fang et al., Garrigues et al. and Fernandes do not disclose a leak check port. Thus, none of these references anticipate Claim 1 as amended. However, the Official Action cites Fang et al. for the general feature of having two o-rings in a single groove and cites Story et al. as disclosing a leak check port. As seen in Figure 1 of Story et al., this reference discloses a leak detector 16 having a sensor probe 32 that is inserted into a hole 30. The hole 30 is in communication with a channel 20 that is machined into the part 14 between individual o-ring grooves 22 and 24. Thus, the leak detector 16 is in communication with a machined groove 20 and is not in communication with a region between the first and second o-rings defined by the continuous contact of these two rings. That is, neither Story et al. nor any of the other cited references disclose a second o-ring in continuous contact with a first o-ring while contained in the groove thereby defining a third region between the first o-ring and the second o-ring, and that a leak check port is in fluid communication with the third region, as now claimed in Claim 1.

Moreover, one of ordinary skill in the art would not be motivated to combine the general concept of a leak check port shown in Story et al. with the configuration of adjacent o-rings in a single groove as shown in the cited reference to Fang et al. Specifically, it is settled law that in rejecting a claim under 35 U.S.C. § 103(a), the USPTO must support its

rejection by “substantial evidence” within the record,¹ and by “clear and particular” evidence² of a suggestion, teaching, or motivation to combine the teachings of different references. As discussed in the September 1, 2004 interview, there is no substantial evidence, nor clear and particular evidence, within the record of motivation for modifying the Fang et al. device by incorporating the leak detection port of Story et al.

First, Fang et al. discloses a double o-ring structure for sealing out dirt in an earth boring bit. Thus, there is no need for a leak detection valve in Fang et al. because there is no fluid to detect. Moreover, a leak detection port may render the apparatus of Fang et al. inoperable by preventing or inhibiting movement of the drill head.³ With regard to Story et al., as discussed above, this reference shows a leak detection port in communication with a machined groove between individual o-ring grooves, and not with respect to a single groove containing two o-rings. Thus, Story et al. discloses a structure that the Background section of Applicants’ specification explicitly describes as problematic. There is simply no hint or suggestion in either Fang et al. or Story et al. to make the leak detection port in communication with a space defined by the two adjacent o-rings in a single groove, as now claimed in Claim 1. Without such motivation and absent improper hindsight reconstruction,⁴

¹*In re Gartside*, 203 F3d 1305, 53 USPQ2d 1769 (Fed. Cir. 2000) (holding that, consistent with the Administrative Procedure Act at 5 USC 706(e), the CAFC reviews the Board’s decisions based on factfindings, such as 35 U.S.C. § 103(a) rejections, using the ‘substantial evidence’ standard because these decisions are confined to the factual record compiled by the Board.)

²*In re Dembiczak*, 175 F3d 994, 999, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999) (“We have noted that evidence of a suggestion, teaching, or motivation to combine may flow from the prior art references themselves, the knowledge of one of ordinary skill in the art, or, in some cases, from the nature of the problem to be solved, although ‘the suggestion more often comes from the teachings of the pertinent references.’ The range of sources available, however, does not diminish the requirement for actual evidence. That is, the showing must be clear and particular.”) (emphasis added).

³ See MPEP ‘ 2143.01. If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959).

⁴See MPEP 2141, stating, as one of the tenets of patent law applying to 35 USC 103, that “[t]he references must be viewed without the benefit of impermissible hindsight vision afforded by the claimed invention.”

a person of ordinary skill in the art would not be motivated to perform the proposed modification. Therefore, Claim 1, as amended patentably defines over the cited references.

In addition, Applicants note that the addition of the leak detection port to Claim 1 does not render this claim subject to a restriction requirement. As discussed in the September 1, 2004 interview, the leak detection port was originally claimed in dependent Claim 8 of the application as originally filed. Thus, the leak detection port feature has already been searched and examined. Therefore, the addition of the leak detection port to Claim 1, albeit in a different format, would not present a burden for the Examiner, which is required for a restriction requirement.

With regard to independent Claim 13, Applicants have amended this claim to recite a plasma processing chamber including a first part of the plasma processing chamber having a first surface, and a second part of the plasma processing chamber having a second surface, wherein the first surface of the first part is configured to cooperate with the second surface of the second part. Also recited is a groove formed in the first surface, an o-ring, configured to seal a first area between the first and second surfaces from the second area exterior to the first area, while contained in the groove, and a grounding gasket, configured to electrically couple the first and second surfaces, while contained in the groove adjacent the o-ring.

Thus, as discussed in the September 1st personal interview, Claim 13 has been amended to recite a plasma processing chamber. Moreover, the plasma processing chamber is positively recited in the body of Claim 1 by referring to first and second parts of such chamber. Support for these limitations is provided the Background of the invention section of the present application, which discusses sealing members in the context of a vacuum type process chamber having sealing members to maintain the vacuum integrity.⁵ Therefore, the amendment to Claim 1 not believed to raise an issue of new matter. As discussed in the

⁵ See Applicants' specification at page 1, paragraph 3.

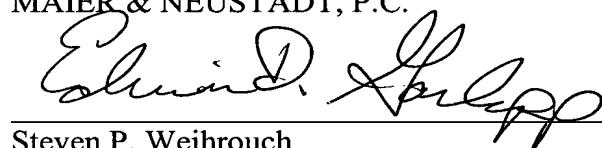
September 1, 2004 personal interview, none of the cited references discloses a sealing member in the context of a plasma processing apparatus. Therefore, Claim 13, as amended, also patentably defines over the cited references.

For the reasons discussed above, independent Claims 1 and 13 patentably define over the cited references. Moreover, as Claims 2-12 and 14-22 depend from Claims 1 and 13 respectively, these claims are also patentably defined over the cited references.

Consequently, in view of the present amendment, no further issues are believed to be outstanding in the present application and the present application is believed to be in condition for formal allowance. An early and favorable action is therefore respectfully requested.

Respectfully submitted,

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